Applications for Membership

Notice is hereby given to all Corporate Members that the Council has approved the applications of Mrs. Maude Rex Allen, Mr. B. A. Banker, Mr. James K. Brenner, Mr. Arthur T. Brice, Miss Barbara Bridge, Mr. J. Hart Clinton, Mr. Herbert L. Coggins, Mr. Colbert Coldwell, Mr. H. D. Collier, Mr. James F. Crafts, Mr. John H. Eldridge, Mrs. Marjory B. Farquhar, Mr. Marshall J. Fauhl, Mr. Harry H. Fish, Mr. Edward L. Frick, Mr. A. Crawford Green, Dr. Henry H. Hart, Dr. Paul A. Harvey, Mr. Lawrence A. Kruse, Sgt. Martin J. Kuck, Mr. Abraham Lincoln, Dr. Charles S. Lipp, Mr. Thurston V. Little, Mrs. Duncan McDuffie, Dr. W. W. Middlekauff, Mr. James R. Moore, Mr. Joseph A. Moore, Mr. Joseph A. Moore, Jr., Mr. Morris E. Morgan, Mr. John Morphy, Brig. Gen. Charles D. Y. Ostrom, Mrs. Fredrick S. Paul, Dr. Alfred R. Roos, Mrs. Jessie W. Sheehan, Mrs. H. D. Tilly, Miss Margaret Tilly, Mr. George Vanderbilt, Mr. William H. Van Pelt, Mr. C. A. Vetrano, Mr. Ernest E. Weihe, and Mr. John W. Whisman for Regular Membership, and of Leonard Bunyan, Bette Ann Harte, Albert J. Mendoza, Niles Morgan, Jeanne Perry, Jerome D. Strain, and Janice Toby for Student Membership in the California Academy of Sciences. If no objection to the election of these applicants be received at the office of the Academy within two weeks after January 21, they will be considered elected.

Revised Constitution Adopted

The proposed "Amended Constitution and By-Laws" submitted to Academy members on December 7, 1951, for a vote by letter ballot, was adopted by a majority of 779 to 35, and became effective January 2, when the vote was canvassed by the Academy's Council as provided in Article IX of the old constitution.

Acting under the amended constitution, the Council elected the following officers: *President,* Francis P. Farquhar; *Vice-President,* E. B. Babcock; *Secretary,* J. Wyatt Durham. The treasurer will be elected by the Board of Trustees.

The Annual Meeting of the Academy will not be held in February, as formerly, but will be held the first Wednesday in October.

February Lecture

Dr. Earl Herald, Curator of Aquatic Biology, will present an illustrated report on the George Vanderbilt Pacific Equatorial Expedition of 1952 on the evening of February 20, at 8 o'clock.

ACADEMY NEWS LETTER

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January Announcement

The regular January meeting of the California Academy of Sciences will be held in the Morrison Auditorium in the Academy's Hall of Science, Golden Gate Park, on Thursday, January 31, at 8 o'clock. Leonard Hall will conduct a screen tour through eleven of

Our National Parks

In brilliant color film Mr. Hall will take us into Mesa Verde in southwestern Colorado, to Grand Canyon in Arizona, Bryce and Zion in Utah, Sequoia and Yosemite in California, Crater Lake in Oregon, Mt. Rainier in Washington, Glacier in Montana, and Yellowstone and Grand Teton in Wyoming.

Leonard Hall is widely known as an author as well as a lecturer. From his "Possum Trot Farm" in Caledonia, Missouri, he contributes a regular column to the St. Louis *Post-Dispatch* and articles to such magazines as *Saturday Evening Post, Collier's, Life,* and *Town and Country.* He still finds time to farm, to lecture, and to film the wildlife of which he is such a keen observer.

In a blaze of color, Mr. Hall's film captures primroses, mariposa lilies, yellow columbines, cholla cactus, snow flowers, shooting stars, paint brush, red heather, bear grass, mountain streams and waterfalls, rock formations, cliffs, vast forests of aspen, pine and fir, deer, squirrels, the astonishing water ouzel, woodpeckers, black bears, and a host of wild creatures.

There are such colorful subjects as an Indian village, the Petrified Forest, grizzlies, elk, antelope, porcupines, and bison in this motion picture.

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THE LABORATORY IN STEINHART AQUARIUM, ROBERT DEMPSTER AND DR. EARL HERALD AT WORK.

RESEARCH IN AQUATIC BIOLOGY is an important part of the operation of the Academy's Steinhart Aquarium. Just how important it is may be judged from this recent example. Shortly after they arrived from Hawaii a large group of reef fishes were observed coming to the surface and acting as if they were suffering from a lack of oxygen. Dr. Earl Herald, Curator of Aquatic Biology, prescribed an increase in the flow of water into the tank, but the fish began dying. Robert Dempster, Aquatic Biologist, then examined the fishes and found the gill membrane filled with microscopic white, oval organisms. These one-celled organisms

were dinoflagellate parasites which had afflicted many fishes in the Aquarium of the Zoological Society in London and in the New York Aquarium in previous years. Dr. Herald wrote to Ross F. Nigrelli, pathologist in the New York Aquarium, asking details of successful treatment. In the meantime, various chemical treatments were tried. A dilute solution of formaldehyde helped to slow down the death rate of the reef fishes, but it wasn't a complete cure. Dr. Herald, at this stage of developments, received Mr. Nigrelli's report on the parasitic organism along with the suggestion that, since the protozoa were apparently holophytic (nourished like green plants) in their non-parasitic stage, the growth and division could be retarded by controlling the light. As a test half the fish in the infected tank were put into a dark stock tank. The half that remained soon died. The ones in the dark tank recovered.

It was found that the parasites which dropped from the gills of the fish settled to the bottom of the tank, where, if they received light, they would divide and divide again and again. When the single cell had multiplied to 128 cells by self-division, the cells developed flagellation, broke apart, and divided again, swimming about to find another host fish.

After ten days or two weeks in the dark, however, the life cycle is broken, and the fish breathe more easily. Now that they have the problem licked, our aquatic biologists are breathing easier, too.

FROM BUSTARDS TO PYGMY HAWKS

A FINE COLLECTION of African birds and mammals has been presented to the Academy by Colonel Dean Witter. The 374 bird specimens represent 263 species from 50 different families. These birds range from the large bustards, crested eagle, hornbills and herons to the pygmy hawk, weaver finches, and sunbirds. Crested eagles are second only to the monkey-eating eagles of the Philippines in size, and the pygmy falcons are the smallest of all hawks—the Asiatic pygmy hawks being smaller than those from Africa.

The small, brilliantly colored sunbirds look something like our humming birds. They are nectar-eaters, but they lack the rapid wing-beat of humming birds, and there is no family relationship.

African shrikes, unlike their relatives in North America and Europe, are gaily colored—something like our tanagers. There are good series of finches in the collection. There are plaintain-eaters, parrots, goatsuckers, coocoos, bee-eaters, wood-hoopoes, honey-guides, larks, babbling thrushes, robins, wagtails, and many others, including nine not yet identified.

The mammal specimens are 30 in number, representing 22 species from 10 families. These include four species of mongoose, a cave rat, crested tree rats, squirrels, bats, galagos, a swamp monkey, and a baboon.

Colonel Witter arranged for this collection to be made while on his recent African trip. J. G. Williams, of the Coryndon Museum in Nairobi, and C. E. Cade, of Nairobi, collected and prepared the specimens. Some of the birds will be used in exhibits in Simson African Hall. The rest go into the collection in the Department of Birds and Mammals where they will be kept for scientific purposes.